

Title (en)  
DIE PACKAGE STRUCTURE AND PREPARATION THEREFOR, AND PACKAGE SYSTEM

Title (de)  
CHIPVERPACKUNGSSTRUKTUR UND HERSTELLUNG DAFÜR SOWIE VERPACKUNGSSYSTEM

Title (fr)  
STRUCTURE DE BOÎTIER DE PUCE ET SA PRÉPARATION, ET SYSTÈME DE BOÎTIER

Publication  
**EP 4318569 A4 20240522 (EN)**

Application  
**EP 21945532 A 20210618**

Priority  
CN 2021100936 W 20210618

Abstract (en)  
[origin: EP4318569A1] This application provides a die package structure, a method for fabricating the same, and a package system. The die package structure includes a package substrate, a die (die), and a first package body. The package substrate has a first surface and a second surface that are opposite to each other. The die is coupled to the package substrate, and the die has a hotspot. A heat dissipation connection point is disposed on the first surface of the package substrate, and a heat conduction channel that communicates the heat dissipation connection point with the hotspot is formed in the package substrate. A first connection terminal for connecting to an external device is disposed on the second surface. The first package body is disposed on the first surface, a heat conduction structure is formed in the first package body, and the heat conduction structure extends from the heat dissipation connection point to a surface of the first package body. Because a position of the heat dissipation connection point corresponds to a position of the hotspot of the die, heat of the hotspot of the die may be dissipated in a targeted manner by using the heat dissipation connection point and the heat conduction structure. The heat conduction structure may be flexibly disposed, and structure formation of the heat conduction structure can be closely combined with a process of fabricating the die package structure.

IPC 8 full level  
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CPC (source: EP US)  
**H01L 21/4846** (2013.01 - US); **H01L 23/3128** (2013.01 - US); **H01L 23/3677** (2013.01 - EP); **H01L 23/42** (2013.01 - US); **H01L 23/4334** (2013.01 - EP); **H01L 23/5383** (2013.01 - US); **H01L 23/5384** (2013.01 - EP); **H01L 23/5386** (2013.01 - US); **H01L 23/552** (2013.01 - EP); **H01L 25/0652** (2013.01 - EP); **H01L 25/0655** (2013.01 - EP); **H01L 25/16** (2013.01 - EP); **H01L 23/3128** (2013.01 - EP); **H01L 23/5389** (2013.01 - EP)

Citation (search report)  
• [XAI] US 2019096791 A1 20190328 - JENG SHIN-PUU [TW], et al  
• [X] US 2016302298 A1 20161013 - MIN TAE-HONG [KR], et al  
• [A] US 7960827 B1 20110614 - MILLER JR AUGUST J [US], et al  
• [A] US 2016276308 A1 20160922 - MIN SUNGHWAN [US], et al  
• [A] US 2019323785 A1 20191024 - EID FERAS [US], et al  
• See also references of WO 2022261947A1

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KH MA MD TN

DOCDB simple family (publication)  
**EP 4318569 A1 20240207**; **EP 4318569 A4 20240522**; CN 115708420 A 20230221; US 2024194562 A1 20240613; WO 2022261947 A1 20221222

DOCDB simple family (application)  
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